

Amendments To the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1 Claim 1 (currently amended): A switching network comprising:
2 a) a first stage of switches having input lines and output lines and
3 comprising m ($n \times k$) switches, wherein m is an integer number, n is
4 an integer number representing the number of input lines and k is an
5 integer number representing the number of output lines;
6 b) a second stage of switches comprising of m ($k' \times k'$) switches, k' is an
7 integer number representing the number of inputs and outputs; and
8 c) a third stage of switches comprising of m ($k \times n$) switches,
9 wherein k' is selected such that $m \cdot Q(k'/m) \geq k$ (where $Q(x/y)$ denotes the
10 quotient of dividing x by y) to allow using m switches in the second stage.

1 Claim 2 (currently amended): A switching network comprising:
2 m identical modules, said module further comprising
3 a) an input stage comprising of a ($n \times k$) switch wherein n is an
4 integer number representing the number of input lines and k is
5 an integer number representing the number of output lines;
6 b) a middle stage comprising of a ($k' \times k'$) switch, k' is an integer
7 number representing the number of inputs and outputs; and
8 c) an output stage comprising of a ($k \times n$) switch
9 wherein k , k' , and m satisfy $m \cdot Q(k'/m) \geq k$.

1 Claim 3 (currently amended): A method of constructing a switching network comprising:
2 a) using m identical modules[.];
3 b) constructing said module from an input stage comprising of a ($n \times k$)
4 switch, a middle stage comprising of a ($k' \times k'$) switch, an output stage
5 comprising of a ($k \times n$) switch; and
6 c) selecting k' such that $m \cdot Q(k'/m) \geq k$.

- 1 Claim 4 (currently amended): A module comprising:
- 2 a) an input stage comprising of a $(n \times k)$ switch wherein n is an integer
- 3 number representing the number of input lines and k is an integer
- 4 number representing the number of output lines;
- 5 b) a middle stage comprising of a $(k' \times k')$ switch, k' is an integer
- 6 number representing the number of inputs and outputs;
- 7 c) an output stage comprising of a $(k \times n)$ switch; and
- 8 wherein a switching network can be constructed using m of said modules, where
- 9 $k, k',$ and m satisfy $m \cdot Q(k'/m) \geq k$

- 1 Claim 5 (currently amended): A method of constructing a $v(k, n, m)$ switching network
- 2 for values of m belonging to a non-empty set M comprising:
- 3 a) using m identical modules[.];
- 4 b) constructing said module from an input stage comprising of a $(n \times k)$ switch, a
- 5 middle stage comprising of a $(k' \times k')$ switch, an output stage comprising of a $(k$
- 6 $\times n)$ switch; and
- 7 c) selecting k' such that $m \cdot Q(k'/m) \geq k$ for all values of m belonging to set M .